

## ABSTRACT OF THE DISCLOSURE

The present invention provides novel pharmaceutical compositions and methods of treatment that utilize or comprise tetrac and/or another thyromimetic compound. The pharmaceutical compositions of the invention are capable of suppressing TSH secretion without inhibiting the pituitary specific monodeiodinase type II and while reducing or avoiding the thyromimetic stimulation of peripheral tissues compared to equivalent TSH-suppressive doses of L-thyroxine (T4). The pharmaceutical compositions of the invention are particularly useful for treating patients suffering from malignancy or abnormal growth of the thyroid and for preventing growth of residual thyroid tissue post thyroidectomy.